Project Narrative
Phonon Corporation - 90 Wolcott Road
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The Phonon Corporation offices and manufacturing facility occupy a 1.566 acre site on 90 Wolcott Road, just to the north of the proposed Girard Brothers Corporation site at 80 Wolcott Road. The Phonon site is fully utilized and additional parking spaces are needed to allow Phonon to maintain and expand its operations at this facility. Girard Brothers Corporation proposes to transfer 15,916 sf of the 80 Wolcott Road property to Phonon for use as additional parking area which will result in a net increase of 30 parking spaces on the expanded Phonon property. A new landscaped berm is proposed between Wolcott road and the new parking lot to improve the street-scape and lessen the view of the parking area. No changes to the size or use of the building are being proposed

The existing Phonon parking area is non-conforming as to setback from the property line in that there is only 2 feet between the edge of the pavement and the property line. The new parking configuration will lessen this non-conformance as the new parking area will be 3 feet from the property line. Additionally, the overall hard surface coverage of The Phonon site will be lessened by the addition of this additional land.

The parking lot is currently drained by sheet flow to catch basins connected to drywells. It is proposed to drain the new parking lot to three new catch basins interconnected with horizontal 24 inch diameter perforated HDPE pipes set in 2" stone. The stone will extend 12" below and above the pipe and 18" to both sides and will be wrapped with Marifi filter fabric to keep the fines in the existing soil from migrating into the voids in the stone. Storm water runoff will enter the catch basins via roof leaders and sheet flow from the paved areas, drain into the horizontal 24 inch diameter perforated HDPE pipe and then into the voids in the stone, to be absorbed by the surrounding soil. The diameter and length of the pipe, its internal volume and the total of the volume of the voids in the stone have been revised and revised again to provide 6,836 cubic feet of underground storage such that, during a 25-year design storm, all of the runoff reaching the retention/absorption system will be retained and absorbed with no overflow to surrounding areas. More intense storms will result in shallow ponding over the catch basin grates in the low points within the parking lot.

The attached study utilizes SCS TR20 methodology and HYDROCADD software to determine the rates of storm water flow to the new catch basins and the retention/absorption system. This study is performed to demonstrate that the introduction of the 24 inch diameter perforated pipe storm water retention/absorption system will retain and absorb the runoff reaching them from a 25-year design storm.

Storm	Absorbed Flow CFS	Stored Volume CF	Elevation Top of System	Elevation Top of Water	Ponding at Catch Basins
2 YR	0.55	4,197	187.0	183.45	NO
5 YR	0.62	5,915	187.0	184.28	NO
10 YR	0.67	7,096	187.0	184.92	NO
25 YR	0.89	8,698	187.0	187.01	NO
50 YR	1.46	10,121	187.0	187.14	YES